

RAW SEQUENCE LISTING

ERROR REPORT



0500
BIOTECHNOLOGY
SYSTEMS
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/492,709
Art Unit / Team No. : 01/E
Date Processed by STIC: 2/15/2000

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,

2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

MARK SPENCER 703-308-4212

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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/492,709DATE: 02/15/2000
TIME: 14:05:42

Input Set: I492709.RAW

This Raw Listing contains the General
Information Section and those Sequences
containing ERRORS.

1 <110> Zyskind, Judith
2 Ohlsen, Kari L.
3 Trawick, John
4 Forsyth, R. Allyn
5 Froelich, Jamie M.
6 Carr, Grant J.
7 Yamamoto, Robert T.
8 Xu, H. Howard
9 <120> GENES IDENTIFIED AS REQUIRED FOR PROLIFERATION IN
10 ESCHERICHIA COLI
11 <130> ELITRA.001A
12 <140> US/09/492,709
13 <141> 2000-01-27
14 <160> 485
15 <170> FastSEQ for Windows Version 3.0

Does Not Comply
Correct Diskette Needed

E-->CK

ERRORED SEQUENCES FOLLOW

E--> 16 <210> 144
17 <211> 1197
18 <212> DNA
19 <213> E. Coli
20 <400> 144

21 atgcaggttg ctgaacagcg cattcagcta gctgaagccc aggcgaaggc agttgccact 60
22 caggatggtc cgcagatcga cttttcggcg gatatggagc ggcaaaaaat gtcggcagaa 120
23 ggcttaattg ggccgtttgc tctgaacgat ccggccgcag gtacgaccgg ccggtggtac 180
24 accaacggta cttttggctt aacggcgggc tggcatctcg atatctgggg aaagaatcgg 240
25 gcgagggtta ctgcccgcct gggtagcggt aaagcacggg cggcggaacg cgagcaaacc 300
26 cgccaattgc tggctggcag cgtagcccgc ctgtactggg agtggcaaac ccaggcggcg 360
27 ttaaaccagg tcttcagca aatagaaaaa gagcagaaca ccattatcgc gaccgatcgc 420
28 cagctatatc agaacgggat tacttcttca gttgaagggt tggaaaccga tattaatgcc 480
29 agcaaaacc cgcagcagct caacgatgtc gcggggaaaa tgaaaattat tgaggcacgg 540
30 ttaagcgcac ttacaaataa ccagacaaag tcattgaagc ttaaaccggt cgcgttgccg 600
31 aaagtggcaa gccagcttcc tgatgaactg gggtagctct tactggcccc gcgggcagat 660
32 ttgcaggcgg cgcactggta cgttgagtca tcgctaagca ccattgatgc ggcaaaagcg 720
33 gcattttatc ctgacatcaa cctgatggcc ttcttgcaac aggatgcgtt gcacttaagc 780
34 gatctgttcc gtcattccgc gcagcaaatg ggcgttacgg caggcctgac gctaccatt 840
35 ttcgatagtg gtcgtcttaa cgccaatctc gatatcgcaa aagccgaaag caacttgtct 900
36 atcgccagct acaacaaagc ggtggttgaa gcggtgaatg acgtggcgcg ggcagccagt 960
37 caggttcaga cactggcgga gaaaaaccag catcaggcgc aaattgagcg cgatgccttg 1020
38 cgtgtggtag gtcttgcgca ggccgcgttt aacgcgggca tcattgctgg tccccgcgtc 1080
39 agcgaagcca gaatccccgc gctgcgtgag cgggccaatg gcctgttatt gcaagggcag 1140

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RAW SEQUENCE LISTING
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DATE: 02/15/2000
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Input Set: I492709.RAW

40 tggtctggatg cctccattca actcactggg gcgttggggcg ggggggtacaa acgctga 1197

E--> 41 <210> 309
42 <211> 173
43 <212> PRT *see p.7*
44 <213> E. Coli
45 <400> 309
46 Met Ser Lys Pro Lys Tyr Pro Phe Glu Lys Arg Leu Glu Val Val Asn
47 1 5 10 15
48 His Tyr Phe Thr Asp Asp Gly Tyr Arg Ile Ile Ser Ala Arg Phe
49 20 25 30
50 Gly Val Pro Arg Thr Gln Val Arg Thr Trp Val Ala Leu Tyr Glu Lys
51 35 40 45
52 His Gly Glu Lys Gly Leu Ile Pro Lys Pro Lys Gly Val Ser Ala Asp
53 50 55 60
54 Pro Glu Leu Arg Ile Lys Val Val Lys Ala Val Ile Glu Gln His Met
55 65 70 75 80
56 Ser Leu Asn Gln Ala Ala Ala His Phe Met Leu Ala Gly Ser Gly Ser
57 85 90 95
58 Val Ala Arg Trp Leu Lys Val Tyr Glu Glu Arg Gly Glu Ala Gly Leu
59 100 105 110
60 Arg Ala Leu Lys Ile Gly Thr Lys Arg Asn Ile Ala Ile Ser Val Asp
61 115 120 125
62 Pro Glu Lys Ala Ala Ser Ala Leu Glu Leu Ser Lys Asp Arg Arg Ile
63 130 135 140
64 Glu Asp Leu Glu Arg Gln Val Arg Phe Leu Glu Thr Arg Leu Met Tyr
65 145 150 155 160
66 Leu Lys Lys Leu Lys Ala Leu Ala His Pro Thr Lys Lys
67 165 170

68 <210> 358
E--> 69 <211> 83 93
70 <212> RNA
71 <213> E. Coli
72 <400> 358
73 ggugaggugg ccgagaggcu gaaggcgcuc ccugcuaag ggaguaugcg gucaaaagcu
E--> 74 gcauccgggg uucgaauccc cgccucaccg cca

60

83 93

75 <210> 359
76 <211> 200
77 <212> PRT
78 <213> E. Coli
79 <400> 359 *invalid*
E--> 80 Met Lys Asn Lys Ala Asp Asn Lys Lys Arg Asn Phe Leu Thr His Ser
81 1 5 10 15
82 Glu Ile Glu Ser Leu Leu Lys Ala Ala Asn Thr Gly Pro His Ala Ala
83 20 25 30
84 Arg Asn Tyr Cys Leu Thr Leu Leu Cys Phe Ile His Gly Phe Arg Ala
85 35 40 45
86 Ser Glu Ile Cys Arg Leu Arg Ile Ser Asp Ile Asp Leu Lys Ala Lys

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Input Set: I492709.RAW

87	50	55	60
88	Cys Ile Tyr Ile His Arg Leu Lys Lys Gly Phe Ser Thr Thr His Pro		
89	65	70	75 80
90	Leu Leu Asn Lys Glu Val Gln Ala Leu Lys Asn Trp Leu Ser Ile Arg		
91		85	90 95
92	Thr Ser Tyr Pro His Ala Glu Ser Glu Trp Val Phe Leu Ser Arg Lys		
93		100	105 110
94	Gly Asn Pro Leu Ser Arg Gln Gln Phe Tyr His Ile Ile Ser Thr Ser		
95		115	120 125
96	Gly Gly Asn Ala Gly Leu Ser Leu Glu Ile His Pro His Met Leu Arg		
97		130	135 140
98	His Ser Cys Gly Phe Ala Leu Ala Asn Met Gly Ile Asp Thr Arg Leu		
99		145	150 155 160
100	Ile Gln Asp Tyr Leu Gly His Arg Asn Ile Arg His Thr Val Trp Tyr		
101		165	170 175
102	Thr Ala Ser Asn Ala Gly Arg Phe Tyr Gly Ile Trp Asp Arg Ala Arg		
103		180	185 190
104	Gly Arg Gln Arg His Ala Val Leu		
105		195	200

E--> 106 <210> 399

107 <211> 2894 2904 shown (p. 4)

108 <212> RNA

109 <213> E. Coli

110 <400> 399

111	aagguuaagc	cucacgguuc	auuaguaccg	guuagcucaa	cgcaucgcug	cgcuuacaca	60
112	cccggccuau	caacgucguc	gucuucaacg	uuccuucagg	acccuuaaag	ggucagggag	120
113	aacucaucuc	ggggcaaguu	ucgugcuuag	augcuuucag	cacuuauucuc	uuccgcuuuu	180
114	agcuaccggg	cagugccauu	ggcaugacaa	cccgaacacc	agugaugcgu	ccacuccggu	240
115	ccucucguac	uaggagcagc	ccccucagu	ucuccagcgc	ccacggcaga	uagggaccga	300
116	acugucucac	gacguucuaa	acccagcucg	cguaccacuu	uaaauaggcg	acagccauac	360
117	ccuugggacc	uacuucagcc	ccaggaugug	augagccgac	aucgaggugc	caaacaccgc	420
118	cgucgauaug	aacucuuggg	cgguaucagc	cuguuaucucc	cggaguaccu	uuuauccguu	480
119	gagcgauggc	ccuuccauuc	agaaccaccg	gaucacuaug	accugcuuuc	gcaccugcuc	540
120	gcgcgucac	gcucgcaguc	aagcuggcuu	augccauugc	acuaaccucc	ugauguccga	600
121	ccaggauuag	ccaaccuucg	ugcuccuccg	uuacucuuua	ggaggagacc	gccccaguca	660
122	aacuaccac	cagacacugu	ccgcaaccgg	gauuacgggu	caacguuaga	acaucaaaaca	720
123	uuaaagggug	guauuucaag	gucggcucca	ugcagacugg	cguccacacu	ucaaagccuc	780
124	ccaccuaucc	uacacaucaa	ggcucaaugu	ucagugucua	gcuauguaa	agguuacagg	840
125	ggucuuuccg	ucuugcccg	gguaacacug	aucuucacag	cgaguucaau	uucacugagu	900
126	cucgggugga	gacagccugg	ccaucauuac	gccauucgug	caggucggaa	cuuaccggac	960
127	aaggaaauuc	gcuaccuua	gaccguuaa	guuacggccg	ccguuuaccg	gggcuucgau	1020
128	caagagcuuc	gcuugcgcu	accccaucaa	uuuaccuucc	ggcaccgggc	aggcgucaca	1080
129	ccguauacgu	ccacuucgu	guuugcacag	ugcuguguuu	uuauuaaaca	guugcagcca	1140
130	gcugguauuc	ucgacugauu	ucagcuccau	ccgcgaggga	ccuaccuac	auaucagcgu	1200
131	gccuucucc	gaaguuacgg	caccauuuug	ccuaguuccu	ucacccgagu	ucucucaagc	1260
132	gccuugguau	ucucuaccug	accaccugug	ucgguuuggg	guacgauuug	aguuuaccug	1320
133	augcuuagag	gcuuuuccug	gaagcagggc	auuuguugcu	ucagcaccgu	agugccucgu	1380
134	caucacgccu	cagccuugau	uuuccggauu	ugccuggaaa	accagccuac	acgcuuuaac	1440
135	cgggacaacc	gucgcccggc	caacauagcc	uucuccgucc	ccccuucgca	guaacaccaa	1500

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136	guacaggaau	auuaaccugu	uucccaucga	cuacgccuuu	cgccucgcc	uuaggggucg	1560
137	acucacccug	ccccgauuaa	cguuggacag	gaacccuugg	ucuuccggcg	agcgggcuuu	1620
138	ucacccgcuu	uauuguuacu	uauugacgca	uucgcacuuc	ugauaccucc	agcaugccuc	1680
139	acagcacacc	uucgcaggcu	uacagaacgc	uccccuaccc	aacaacgcau	aagcgucgcu	1740
140	gccgcagcuu	cggugcaugg	uuuagccccg	uuacauucuc	cgcgcaggcc	gacucgacca	1800
141	gugagcuauu	acgcuuucuu	uaaaugaugg	cugcuucuaa	gccaaacucc	uggcugucug	1860
142	ggccuuccca	caucguuucc	cacuaaacca	ugacuuuggg	accuuagcug	gcgguucggg	1920
143	uuguuuuccu	cuucacgacg	gacguuagca	cccgcggugu	gucucccgug	auaacaauuc	1980
144	ccgguauucg	caguuuugcau	cggguuggua	agucgggaug	accccuugc	cgaaacagug	2040
145	cucuaccccc	ggagaugaa	ucacgaggcg	cuaccuaaa	agcuuucggg	gagaaccagc	2100
146	uauucuccgg	uuugauuggc	cuuucacccc	cagccacaag	ucauccgcua	auuuuuaac	2160
147	auuagucggg	ucgguccucc	aguuauguu	acccaaccuu	caaccugccc	auggcuaagau	2220
148	caccggguuu	cgggucuaa	cccugcaacu	uaacgcccag	uuuagacucg	guuucccuuc	2280
149	ggcuccccua	uucgguuuac	cuugcuacag	aaauaaaguc	gcugacccau	uauacaaaag	2340
150	guacgcaguc	acacgccuaa	gcgugcuccc	acugcuugua	cguacacggg	uucagguucu	2400
151	uuuucacucc	ccucgccggg	guucuuuucg	ccuuucccuc	acgguacugg	uucacuaucg	2460
152	gucagucagg	aguauuuagc	cuuggaggau	ggucccccca	uauucagaca	ggauaccacg	2520
153	ugucccgccc	uacucaucga	gcucacagca	ugugcauuuu	uguguacggg	gcugucaccc	2580
154	uguaucgcgc	gccuuuccag	acgcuuccac	uaacacacac	acugauucag	gcucugggcu	2640
155	gcuccccguu	cgcucgccgc	uacuggggga	aucucggguu	auuucuuuuc	cucggggguac	2700
156	uuagauguuu	caguuccccc	gguucgccuc	auuaaccuau	ggaucaguu	aaugauagug	2760
157	ugucgaaaca	cacuggguuu	ccccauucgg	aaucgccgg	uuauaacggg	ucauauacc	2820
158	uuaccgacgc	uuauccgaga	uuagcacguc	cuucaucgcc	ucugacugcc	agggcaucca	2880
E--> 159	ccguguacgc	uuagucgcuu	aacc				2894

2904



Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
<223> fields of each sequence which presents at least one n or Xaa.

6

insert a blank line at the end of seq. 142

09/492,709

→ <210> 143
 move
 this over

<211> 186

<212> DNA

<213> E. Coli

<400> 143

atgagcaaag ggcgattata tgaatttaac aatccagatc aactgaaaat acctctccct	60
cataaacaca tagcgtcaac attcaatgac ataatgagta aagatgttgg ttatgcatac	120
gtatcattac tctatgcctg tcccttaaaa acccactcat taagactgaa tccattcagc	180
aaatga	186

79/492,709

→
move over
<210> 308
<211> 555
<212> PRT
<213> E. Coli

<400> 308
(<400> 3) *delete*
Met Ala Gln Phe Val Tyr Thr Met His Arg Val Gly Lys Val Val Pro

VERIFICATION SUMMARY
PATENT APPLICATION US/09/492,709

DATE: 02/15/2000

TIME: 14:05:42

Input Set: I492709.RAW

Line	? Error/Warning	Original Text
14	E # of Seq. 485 Not Equal Actual 486	<160> 485
16	E Seq.#s 1 thru 143 missing	<210> 144
41	E Seq.#s 1 thru 308 missing	<210> 309
69	E Input 83, Calc# Bases 93 differ	<211> 83
74	E Number of Bases conflict w/ Running Total	gcauccgggg uucgaauccc cgccucaccg cca
80	E Wrong Amino Acid Designator	Meu Lys Asn Lys Ala Asp Asn Lys Lys Arg A
107	E Input 2894, Calc# Bases 2904 differ	<211> 2894
159	E Number of Bases conflict w/ Running Total	ccguguacgc uuagucgcuu aacc